

ABSTRACT OF THE DISCLOSURE

An ultrasonic vibration tool is made of a block of substantially rectangular parallelepiped form, and has its one end face formed as an output end face, and has its other end face opposite the output end face formed as an input end face.

An ultrasonic oscillator is connected to the input end face for transmitting a longitudinal standing wave to the output end face. Peripheries of the input and output end faces of the block constitute mass portions. Between the mass portions are formed slits at a pitch less than a half of an oscillation wavelength, whereby a plurality of elastic portions are obtained. The mass portion on the input end face side has a protrusion having a height equal to or less than a quarter of the oscillation wavelength, thereby obtaining a mass distribution. Hence, a uniform amplitude distribution is achieved in the output end face.